

WE CLAIM:

1. A sewing apparatus comprising:

a needle bar on which a sewing needle is mounted;

5 a needle bar vertically moving mechanism vertically moving  
the needle bar;

a thread cassette having a thread accommodating section  
accommodating a supply of thread;

a cassette mount to which the thread cassette is detachably  
10 attached;

a threading mechanism operated in synchronization with  
attachment of the thread cassette to the cassette mount when the  
needle bar is stopped at a predetermined position, the threading  
mechanism passing the thread drawn from the thread cassette  
15 through an eye of the needle mounted on the needle bar; and

a threading limiting unit limiting the threading mechanism  
so that the threading mechanism is inoperative in a case where  
the thread cassette is attached to the cassette mount when the  
apparatus is disconnected from a power supply.

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2. A sewing apparatus according to claim 1, further  
comprising a needle bar rocking mechanism for rocking the needle  
bar and a needle bar movement controlling unit controlling the  
needle bar vertically moving mechanism and the needle bar rocking  
25 mechanism so that the needle bar is moved to the predetermined  
position in a case where the thread cassette has been detached  
from the cassette mount while electric power is being supplied  
to the apparatus.

3. A sewing apparatus according to claim 1, further comprising a needle bar movement controlling unit controlling the needle bar vertically moving mechanism so that the needle bar is moved to the predetermined position in a case where the thread cassette has been detached from the cassette mount while electric power is being supplied to the apparatus.

4. A sewing apparatus according to claim 1, wherein the threading mechanism includes a moving member provided on the cassette mount, the moving member being thrust by the thread cassette attached to the cassette mount thereby to be moved from an initial position so that the threading mechanism is operated, and the threading mechanism includes a holding unit holding the moving member at a standby position where the threading mechanism is inoperative even when the moving member is thrust by the thread cassette being attached to the cassette mount.

5. A sewing apparatus according to claim 4, wherein the holding unit includes a stopper engaging the moving member located at the standby position to hold the moving member at the standby position, an actuator switching between an engagement position where the stopper engages the moving member and a non-engagement position where the stopper is disallowed to engage the moving member, and a control unit controlling the actuator.

6. A sewing apparatus according to claim 5, wherein the actuator comprises a pulse motor provided in the needle bar vertically moving mechanism for rocking the needle bar, and the

threading limiting unit limits the threading mechanism so that the stopper is located at the non-engagement position when the needle bar is located at the predetermined position and so that the stopper is located at the engagement position when the needle  
5 bar is located at a position other than the predetermined position.

7. A sewing apparatus according to claim 6, wherein the pulse motor also serves to open and close a thread tension disc applying a tension to the thread drawn from the thread cassette, and the  
10 thread tension disc is opened when the needle bar is located at the predetermined position and closed when the needle bar is located at a position other than the predetermined position.

8. A sewing apparatus comprising:  
15 a needle bar on which a sewing needle is mounted;  
a needle bar vertically moving mechanism vertically moving the needle bar;  
a thread cassette having a thread accommodating section accommodating a supply of thread;  
20 a cassette mount to which the thread cassette is detachably attached;  
a thread carrying mechanism operated in synchronization with attachment of the thread cassette to the cassette mount when the needle bar is stopped at the predetermined position, thereby  
25 carrying the thread from the thread cassette to a position near an eye of the needle mounted on the needle bar;  
a threading mechanism operated in synchronization with attachment of the thread cassette to the cassette mount when the

needle bar is stopped at the predetermined position, the threading mechanism passing the thread drawn from the thread cassette through the needle eye; and

- 5 a limiting unit limiting the threading mechanism and the thread carrying mechanism so that both the threading mechanism and the thread carrying mechanism are inoperative in a case where the thread cassette is attached to the cassette mount when the apparatus is disconnected from a power supply.